

REMARKS

A Final Rejection was mailed in the present case on December 20, 2005, rejecting pending Claims 1-4. This Request For Continued Examination is being submitted, along with a request for Extension of Time Within the Second Month and the required extension fee.

Applicant's invention provides one solution to the problem of environmental degradation of the sealing gaskets used in plastic pipe systems, such as water and sewer pipes used in the municipal water works industries. The gaskets which are used as the sealing elements in such systems are subjected to attack by any of a number of environmental contaminants. These include, oil and hydrocarbons, sunlight, ozone, chemicals, etc. In order to ensure the sealing integrity of such systems, it is necessary to certify that the gaskets in question meet, for example, oil resistance standards as set out in ASTM C361.

In the prior art, the ASTM standard has generally been met by providing a sealing gasket formed of a material which is itself resistant to oil and other environmental contaminants. This provides a satisfactory solution to the problem, but has the disadvantage that the more exotic rubber formulations, such as nitrile rubber, are more expensive.

Applicant has solved the problem of providing a sealing gasket which will meet the requisite ASTM standard for oil resistance by providing a specific type of coating for the gasket. Since the inner gasket body is no longer exposed to the environment, a less expensive rubber formulation can be used to form the body, for example SBR. Applicant's coating provides a gasket with oil, chemical and environmental similar to nitrile rubber at a fraction of the cost. An additional advantage of the coating is that it provides the option of easily color coding gaskets by type or application. Thus, a water line gasket would be a different color than a sewer line gasket, etc.

Applicant has amended the remaining independent Claim 1 to describe a method of installing a gasket in a socket end of a thermoplastic pipe which is used to form a pipe coupling, the method utilizing a gasket coating step "wherein the gasket coating is effective to provide oil resistance which is at least that of nitrile rubber at a fraction of the cost of a nitrile rubber gasket, thereby allowing a less expensive material to be used in a product with characteristics equivalent to a more expensive material." Support for the amended claim language can be found at page 3, lines 22-25 and page 10, lines 18-19 of the Specification as originally filed.

Applicant's invention is the discovery that a particular class of coatings provides many of the above advantages without adding a undue cost burden on the gasket/pipe manufacturing process. Applicant has found that a class of polyurethane synthetic coatings can be utilized in coating applications of the type under consideration. One preferred class of polyurethane materials is sold commercially by Lord Chemical Products of Erie, PA, as the "Lord Elastomeric Coatings"TM and is described extensively in the Specification as originally filed. One particularly preferred coating is manufactured by Lord Chemical Products of Erie, PA, as the CHEMGLAZE® polyurethane coating.

Applicant's Claims 1-4 have been finally rejected based upon the Corbett, Jr. '309, Corbett, Jr. '886 and Doolittle '660 references, previously cited, under 35 U.S.C. Section 103(a). The first Corbett, Jr. reference ('309) is cited to show the basic pipe belling manufacturing operation and also the use of a Teflon® coating which reduces frictional resistance during the pipe belling operation. The Examiner argues that Doolittle makes Applicant's invention "obvious" since Doolittle teaches that both Teflon® and polyurethane coatings are used as anti-friction coatings. The second Corbett, Jr. reference ('886) is apparently cited to show further details of the pipe belling manufacturing process, such as the use of a back up collar, and the like. The Examiner admits that the '886 reference fails to teach a gasket coating and that the coating taught in the '309 patent is a Teflon® coating, rather than a polyurethane coating. However, the Examiner argues that Doolittle makes Applicant's invention "obvious" since he teaches that "both Teflon® and polyurethane coatings are used as anti-friction coatings." Applicant respectfully requests reconsideration of the rejected claims in this RCE based upon the following arguments:

1. There is more involved in Applicant's invention than the mere discovery of a coating which will provide environmental protection and Applicant should be given protection commensurate with the discovery. Not even a combination of the references suggest the key concept of Applicant's presently claimed invention of utilizing a coating for a sealing gasket "wherein the gasket coating is effective to provide oil resistance which is at least that of nitrile rubber at a fraction of the cost of a nitrile rubber gasket, thereby allowing a less expensive material to be used in a product with characteristics equivalent to a more expensive material." The Teflon coating used in the Corbett, Jr. reference was primarily concerned with providing an "anti-friction coating" which would reduce insertion force during pipe belling operations. No one envisioned utilizing a less expensive gasket body which would be given a special coating to meet ASTM oil resistance standards, thereby providing greater economy in manufacturing. Even a small cost saving is very significant in a commodity business such as the sealing gasket business of the type under consideration where literally millions of gaskets are manufactured and sold each year.

Corbett, Jr., the named inventor in the present application, was also the inventor of the '309 patent which was filed in 1999 and of the '886 patent which was filed in 2001. Nevertheless, it was not until at least November 2002 (the filing date of the priority provisional application) that the same inventor was able to locate a specific coating which would meet ASTM C361 standards for oil resistance for sealing gaskets.

Applicant is including with this response, as Attachment 1 hereto, a copy of a laboratory report showing that the coatings in question provide adequate oil resistance to meet ASTM C361.

Note that while the Col. 6, lines 53-57 of the '309 reference mentions that a Teflon coating will "improve the shelf life of a gasket" and provide increased oxidation resistance, oil resistance is not mentioned.

2. Applicant's invention is not "obvious" because the coatings in question were originally being used for a totally different purpose. The Lord coatings in question were originally being used primarily for improving the adherence between a metal part and a rubber part, not to provide sealing gaskets with improved environment resistance. The coatings were developed for the primary purpose of improving adherence between the metal and rubber components of an engine motor mount in an automobile engine. There was no suggestion that such coatings could be used to provide greater economy in sealing gasket manufacturing operations.

3. The combination of art is not a logical combination that would have been envisioned by one "skilled in the relevant art." The Examiner combines two sealing gasket patents with a patent from a totally different field of use than Applicant's sewer and water line gaskets for plastic pipe. Doolittle deals with an aircraft arresting apparatus which can be stretched across a runway to arrest the forward momentum of a landing aircraft. Applicant would respectfully submit, that while a certain type coating might work in the field of use of Doolittle, it might be totally unsuitable for a totally different field of use. Doolittle is concerned with the frictional characteristic of a landing net catching an aircraft without damaging sensitive parts of the aircraft (Col. 4, lines 20-23). The environments of these two inventions are totally different and the pressures, temperatures, stresses, etc., are totally different.

4. The environmental factors other than frictional resistance affecting Doolittle also differ from those affecting Applicant's goods. Doolittle's nets may be used temporarily (such as in an emergency landing) and then stored away. In such case, there may be very little detrimental effects in the

immediate environment. Even if they are continuously left in place, they are mostly subjected to sunlight as a “corrosive” factor. Applicant’s sewer gaskets, for example, may subject the sealing gasket to any number of corrosive and detrimental environmental agents. These include, for example, hydrogen sulfide gas in sewer environments. Such detrimental factors are in addition to the fact that Applicant’s gaskets also come into contact with oils and solvents, both during the manufacturing operation and later during field make-up of the pipe joint. There is no reason to assume that one trying to provide a landing net with improved frictional characteristics would suggest the presently claimed improvement in sealing gasket manufacturing operations.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the Appellant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Appellant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). MPEP § 2142.


Applicant would respectfully submit that the Examiner has failed to provide a *prima facie* case of obviousness as defined above. Applicant has described a suitable gasket coating which will

accomplish the stated objectives of the invention. Accordingly, Applicant should be allowed a claim of commensurate scope.

Reconsideration of Claims 1-4 is requested in view of the above arguments and amendments.

Respectfully submitted,

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